

## ABSTRACT

A valve assembly is provided which can be particularly advantageous in a gas purification system (e.g., for purifying hydrogen) having a plurality of vessels each having a first port opening and a second port opening. The gas purification system includes a first valve element or assembly having a first aperture to selectively connect a first port opening of one of the plurality of vessels to an outlet of the first valve element. The gas purification system also includes a second valve element or assembly having a second aperture to selectively connect a second port opening of one of the plurality of vessels to an input of the second valve element. Also provided are a motor adapted to rotate continuously and a converting mechanism that converts continuous movement of the motor into intermittent movement. The first and second valve elements are intermittently moved by the motor and the converting mechanism such that the intermittent movement changes the vessel connected to the second aperture and the vessel connected to the first aperture.